



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200  
Fax 613 632-5246

Print

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name	
PO041983	ACI001-VC	2		1 Net 30	M304R1.000	304 Round Bar 1.00 ; MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft				24	12/17/2018	24		S138862	Stock	12/13/2018	\$ 12.65 / ft	6		\$307.89	Acier Ouellette Inc.	
		3			M304S20GA	304/316 .040 Sheet ; MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				128		128		S138863	Stock	12/13/2018	\$ 6.08 / sf	6		\$777.61	Acier Ouellette Inc.	
		4			M5052H32S.040	5052-H32 .040 Sheet ; MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf				32		32		S138864	Stock	12/13/2018	\$ 3.99 / sf	6		\$127.72	Acier Ouellette Inc.	
		5			M5052H32S.063	5052-H32 .063 Sheet ; MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf							32		S138865	Stock	12/13/2018	\$ 6.39 / sf	6		\$204.40	Acier Ouellette Inc.
		6			MT-1144-R0.750	AISI 1144 Stressproof Round Bar 0.750" ; MATERIAL : AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440					22		22		S138866	Stock	12/13/2018	\$ 3.67 / ft	6		\$80.83	Acier Ouellette Inc.
		7			M6061T6B0.750X00.125	6061-T6 Bar .750 X .125 ; MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				100		100		S138867	Stock	12/13/2018	\$ 0.55 / ft	6		\$55.00	Acier Ouellette Inc.	
		Total:											338									



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## PO041983

**Supplier:** ACI001-VC  
Acier Ouellette Inc.  
935 Boul. Du Havre  
Valleyfield  
QC  
J6S 5L1 Canada  
Phone: 800 667 4248  
Fax: 450 377 5696

**PO No:** PO041983

**PO Date:** 12/7/18

**Due Date:** 12/17/18

**Purchase Order  
Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
clavoie@dartaero.com

**E-MAILED**  
**DEC 07 2018**

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground

**Pymt Terms:** Net 30

**Freight Terms:**

**Special Comments:** quotation no. sou01457135

### Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		MT-A513-T-4.500W0.250		SEAMLESS ALLOY STEEL ROUND TUBING 4.500 Dia. and 0.250 Wall	Firmed	-	12/17/18	4 ft	0 ft	4 ft	\$40.50/ft	\$162.00
2		M304R1.000		304 Round Bar 1.00 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	12/17/18	24 ft	0 ft	24 ft	\$12.654583/ft	\$303.71
3		M304S20GA		304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	-	12/17/18	128 sf	0 sf	128 sf	\$6.0750781/sf	\$777.61
4		M5052H32S.040		5052-H32 .040 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf	Firmed	-	12/17/18	32 sf	0 sf	32 sf	\$3.99125/sf	\$127.72
5		M5052H32S.063		5052-H32 .063 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf	Firmed	-	12/17/18	32 sf	0 sf	32 sf	\$6.3875/sf	\$204.40



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO041983

## Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6 <i>At</i>		MT-1144-R0.750		AISI 1144 Stressproof Round Bar 0.750" : MATERIAL : AISI 1144 STRESSPROOF STEEL ROUND BAR ASTM A311 or UNS G11440	Firmed	-	12/17/18	20 ft	0 ft	20 ft	\$3.674/ft	\$73.48
								<i>22 ft</i>			<i>At 18/12/19</i>	
7 <i>At</i>		M6061T6B0.750X00.125		6061-T6 Bar .750 X .125 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	-	12/17/18	100 ft	0 ft	100 ft	\$0.55/ft	\$55.00
								<i>✓ 100 ft</i>			<i>At 18/12/19</i>	

Grand Total: \$1,703.92

## Order Notes

### Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 12/7/18 11:53 AM dart.lavoie.chantal



ACIER OUELLETTE INC.

935, Boul. du Havre  
Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

CO00124561

11697

Billed to

DART AEROSPACE LTD  
1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

Shipped to

1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7  
Att: CHANTAL LAVOIE Tél.: 613-632-5200  
Delivery Route 5

Instruction F-M

Customer N° CLI0001056  
Date 2018/12/10  
Delivery date 2018/12/13  
Your order N° PO041983  
Processed by Elodie Viaud  
Salesman ELODIE VIAUD  
Carrier OUELLETTE VALLEYFIELD  
Credit Terme Net 30 Days

Product Description	Weight	Qty	UM	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
1 TUBE MEC 4.500 OD X .250 (R) TME-4500250 6727 SAW CUT 1 X 4' HEAT: 9516493 TRANSIT ST-JEROME 12 DÉCEMBRE	45.40	4.00	PI_\$CPI		1x BLO					
2 ROUND SS 1 304 (R) RSS-1 5747 2 X 12' R/L HEAT: 180311356	64.08	24.00	PI_\$CLB		2x12'					
3 SHEET SS 20G SS304-2B (4 X 8) FESS-20G483042B 3430 4 X 4' X 8' HEAT: YU187406	200.96	128.00	PI2_\$CLB		4x4'x8'					
4 PALETTE PALETTE 7573		1.00	UN_\$UN							
5 ALU SHEET .040 (18G) 5052-H32 (4 X 8) FEAL-040485052 3124 1 X 4' X 8' AC22321SDI-2018/12/12 HEAT: 5170210352	18.02	32.00	PI2_\$CLB		1x 4x8'					
6 ALU SHEET .064 (14G) 5052-H32 (4 X 8) FEAL-064485052 3174 1 X 4' X 8' AC22321-SDI-2018/12/12 HEAT: GFAT807W50003	28.83	32.00	PI2_\$CLB		1x 4x8'					

CL



# DELIVERY - CLIENT

Copy

CO00124561

Product Description	Qty	Weight	UM	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
7 ROUND STRESSPROOF 3/4 (R) RST-34 1 X 20' R/L HEAT C124677	30.00	20.00	PI_\$CLB		1x20'					
8 FLAT ALU 1/8 X 3/4 6061-T6 NS FAL-18346061 5 X 20' AC22321-SDI-2018/12/12 HEAT C1715501	11.30	100.00	PI_\$CLB		5x20'					


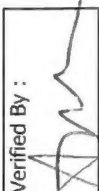

Note : ATTENTION: MILL TEST REQUIS

Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (Lbs) : 398.59

NIR : R-109516-6

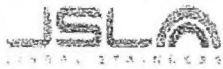
Prepared By : 	Verified By : 	Delivered By : 	Time
Customer's Signature			Date
			18/12/13



5747

RSS-1

21757



**MILL TEST CERTIFICATE**  
(INSPECTION CERTIFICATE)  
In Accordance with EN 10204 :2004 Type 3.1

Jindal Stainless (Hisar) Limited  
Hot Rolling Division

52711

CUSTOMER	EXCEL STAINLESS LLC	CERTIFICATE NO.	JSHL-HRD/QA/2018-19/ER/00001245
CITY	WARRENVILLE IL	DATE	29.08.2018
Q&NO	0970-LP	NET WT(Lbs)	9528.368
SALES ORDER NO.	3500010255	COMMERCIAL INV. NO.	H20181980211
PROFORMA INVOICE NO.	6100024950	OA DATE:28.03.2018	SO DATE:28.03.2018
		DATE:29.08.2018	

Material Description/Product	STAINLESS STEEL HOT FINISHED ROUND BAR	Material Specifications	ASTM A276/A276M - 2017	Process-Route	BAF-AOD/VOD-LRF-CCS/INGOT	Dimension Tolerance specification	As per QA/PO Agreement.
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PHYSICAL DESCRIPTION										
SR NO	BATCH NO	PACKET NO	WEIGHT (Lbs)	NO OF PCS	HEAT NO	GRADE	DIA/SIZE (inch)	NOML. LENGTH (inch)	FINISH	QUALITY
1	1805AR7143	1805AR7143	440.924	1	1805J1078	304L/304	3.500	144.000	PP	PRIME
2	1802AR8027	1802AR8027	1186.086	4	1802J1147	304L/304	3.000	144.000	PP	PRIME
3	1805AR7000	1805AR7000	663.591	3	1805J1049	304L/304	2.500	144.000	PP	PRIME
4	1807AR7859	1807AR7859	1014.125	7	1807J1324	304L/304	2.000	144.000	PP	PRIME
5	1803AR7463	1803AR7463	1102.310	33	1803J1356	304L/304	1.000	144.000	PP	PRIME
6	1803AR7464	1803AR7464	1003.102	30	1803J1356	304L/304	1.000	144.000	PP	PRIME
7	1806AR8047	1806AR8047	1183.881	65	1806J1157	304L/304	0.750	144.000	PP	PRIME
8	1806AR8051	1806AR8051	1036.171	56	1806J1157	304L/304	0.750	144.000	PP	PRIME

CHEMICAL ANALYSIS (TABLE)																
SR NO.	HEAT NO	GRADE	C%	Mn%	S%	P%	Si%	Ni%	Cr%	N%	Mo%	Cu%	Ti%	Nb/Cb%	Al%	
1	1805J1078	304L/304	0.027	1.64	0.025	0.035	0.41	8.05	18.16	0.080						
2	1802J1147	304L/304	0.022	1.52	0.024	0.035	0.34	8.08	18.24	0.070						
3	1805J1049	304L/304	0.022	1.52	0.028	0.037	0.34	8.03	18.10	0.068						
4	1807J1324	304L/304	0.027	1.54	0.025	0.036	0.38	8.06	18.10	0.075						
5	1803J1356	304L/304	0.023	1.51	0.021	0.036	0.36	8.10	18.26	0.075						
6	1803J1356	304L/304	0.023	1.51	0.021	0.036	0.36	8.10	18.26	0.075						
7	1806J1157	304L/304	0.027	1.63	0.028	0.035	0.43	8.03	18.08	0.072						
8	1806J1157	304L/304	0.027	1.63	0.028	0.035	0.43	8.03	18.08	0.072						

MECHANICAL PROPERTIES: SAMPLE DIRECTION - LONGITUDINAL										ADDITIONAL INFORMATION									
Sr No.	Packet/Batch No.	Dia/Size inch	Rp 0.2 YS ksi	Rp 1.0 ksi	Rm/TS ksi	%EL A 2 inch	%EL SAT. SINGLE inch	Hardness BHN	%RA										
1	1805AR7143	3.500	53.373		88.763	55		163		(1) Material solution annealed in accordance with requirements as laid in ASTM A 484/A 484M ED 2018 (Table 2, Annealing Requirements). (2) Material also Confirms to ASTM A479/A479M-18, COND. A (Chemically & mechanically). (3) IGC test as per ASTM A 262 practice (E) and after exposure the specimens were bent (1 T:180 degree) and inspected at magnification of 20X and found without any cracks. (4) Micro examination: Step structures as per ASTM A 262 practice (A). (5) Grain Size as per E112-2013 and confirms to ASTM No. 4 or Finer. (6) Macro examination - No centre segregation observed. (7) No weld repair has been done on any bar. (8) Dimension tolerances as per ASTM A484/A484M-18 under FINISH column PP stands for PEELED & POLISHED.  MILL TEST CERTIFICATE - PART 1 OF 5 Buyer / Customer PO No. P207782									
2	1802AR8027	3.000	43.801		86.732	54		160											
3	1805AR7000	2.500	53.373		85.717	57		156											
4	1807AR7859	2.000	55.839		86.732	56		160											
5	1803AR7463	1.000	57.579		98.190	42		226											
6	1803AR7464	1.000	57.579		98.190	42		226											
7	1806AR8047	0.750	64.686		98.770	49		192											
8	1806AR8051	0.750	64.686		98.770	49		192											

The material supplied under this Test Certificate is free from any radioactive contamination as checked by procedures established by Jindal Stainless (Hisar) Limited as per the recommendations provided by AERB.

Jindal Stainless (Hisar) Limited,  
Hot Rolling Division,  
U.P. Jindal Nagar, JHARWA (25005) INDIA.  
TEL: +91-1662-222471-81  
FAX: +91-1662-222495, 220476  
Email: testing.fah.gjshi@jindal.com  
Format Ref: QAD35F-43REVND 01, Ed: Date: 15/03/2018

This is hereby certified that the material was manufactured, sampled, tested & inspected in accordance with requirements of the material specification. SGP/PO and has been found to meet these requirements.

QMS ISO 9001:2015  
CERTIFIED COMPANY

Documents Digitally signed by Jindal Stainless (Hisar) Limited

Signer: Anil Mishra  
Date: 30 August 2018 17:45  
AUTHORISED SIGNATORY  
(QUALITY ASSURANCE DEPT.)

An unauthorised usage of this Test Certificate will warrant Legal Action

Heat: 1803J1356

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR  
(NOTE: AISI 303 NOT ACCEPTABLE)

B SPECIFICATION:

ASTM A276

PART NUMBER:

M304R D.DDD  
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M304R0.750

RELEASED  
CT 28/25/14

B	REFORMAT DATE: ADD SHEETS (2N D6 1)	CP	09.07.15
A	NEW ISSUE	AJS	08.03.03
REV	DESCRIPTION	BY	DATE
DESIGN	SS		
DRAWN	QA		
CHECKED			
MFG. APPR.	M304R		
APPROVED			
DE APPR.			
DATE	09.07.15		
DART AEROSPACE LTD		REV. B	
HAWKESBURY, ONTARIO, CANADA		SHEET 1 OF 1	
DRAWING NO.		SCALE	
TITLE		NTS	
304/316 ROUND BAR			
COPYRIGHT © 1988 BY DART AEROSPACE LTD			

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R1.000  
 DATE: 18/12/19

PO / BATCH NO.: P0041483/5138862

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 24.33ft  
 QUANTITY INSPECTED: 24.33ft  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000"  
 THICKNESS RECEIVED: 1.000"  
 SHEET SIZE ORDERED: —  
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	ASTM A276
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	LT: 1803J1358
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> <u>9-89</u>	SIGNED OFF BY: _____
DATE: <u>18/12/19</u>	DATE: _____

**Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in**



3430

FESS-20G483042B

QUV - 51801  
21636  
52678

MILL TEST CERTIFICATE

Customer:

Steel Grade: AISI 304L

Date: 2018/07/25

Invoice No.: SQCAEW8602TE6

Surface Finish: 2B

Page: P03/P04

Goods: STAINLESS STEEL COLD ROLLED SHEETS

Specification: ASTM A240/A480

Certificate No.: PTTW028604TE6

Product ID	Chemical Composition (%)								Mechanical Properties				
	C	Si	Mn	P	S	Ni	Cr	N	Tensile Test			Hardness Test	
									Y.S. (Mpa)	T.S. (Mpa)	EL (%)	HRB	HV
76S87832A-2	0.024	0.380	1.370	0.029	0.002	8.03	18.30	0.056	341	683	52.0	90	191
76S87832A-3	0.024	0.380	1.370	0.029	0.002	8.03	18.30	0.056	341	683	52.0	90	191
76S44518A-3	0.025	0.470	0.760	0.034	0.006	8.01	18.03	0.035	288	695	50.0	85	171
76S44518A-4	0.025	0.470	0.760	0.034	0.006	8.01	18.03	0.035	288	695	50.0	85	171
76S44518A-5	0.025	0.470	0.760	0.034	0.006	8.01	18.03	0.035	288	695	50.0	85	171
76S44518A-6	0.025	0.470	0.760	0.034	0.006	8.01	18.03	0.035	288	695	50.0	85	171
76S44518A-7	0.025	0.470	0.760	0.034	0.006	8.01	18.03	0.035	288	695	50.0	85	171
75S87600A-1	0.019	0.660	1.620	0.030	0.002	8.01	18.01	0.038	275	672	50.0	85	171
75S87600A-2	0.019	0.660	1.620	0.030	0.002	8.01	18.01	0.038	275	672	50.0	85	171
76S44518A-1	0.025	0.470	0.760	0.034	0.006	8.01	18.03	0.035	288	695	50.0	85	171
Product ID	Heat No.		SIZE					PCS	Remarks				
76S87832A-2	L2256A09		18GA X 60" X 120"					30	REFERRING TO ASTM SPEC				
76S87832A-3	L2256A09		18GA X 60" X 120"					30	PO NUMBER: 18-P-266				
76S44518A-3	YU187406		20GA X 48" X 96"					71	LC NUMBER: DC HMN812260				
76S44518A-4	YU187406		20GA X 48" X 96"					71	OBL NUMBER: KHHMTRJ7829				
76S44518A-5	YU187406		20GA X 48" X 96"					71	CONTAINER NUMBER: MEDU7714189, MEDU6306285				
76S44518A-6	YU187406		20GA X 48" X 96"					71	Manager Of QA Dept.				
76S44518A-7	YU187406		20GA X 48" X 96"					61	SEE COMMENTS ABOVE				
75S87600A-1	L2801376		20GA X 60" X 120"					39					
75S87600A-2	L2801376		20GA X 60" X 120"					39					
76S44518A-1	YU187406		20GA X 48" X 120"					48					

We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.

Heat YU187406

K. C. W.

[illegible]

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304S206A

PO / BATCH NO.: P0041983/S138863

DATE: 18/12/19

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.040"

QUANTITY RECEIVED: 128st

THICKNESS RECEIVED: 0.040"

QUANTITY INSPECTED: 128st

SHEET SIZE ORDERED: 4'x8'

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>ASTM A240</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>HT: KU187406</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>	<b>ENGINEERING SIGNOFF (if required)</b>
INSPECTED BY: <u>61</u> DATE: <u>18/12/19</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



CKO

## ZHE JIANG GKO ALUMINIUM STOCK CO., LTD.

XIA TAO, FENGJIANG, LUQIAO, TAIZHOU, ZHEJIANG, CHINA

TEL.: +86 576 82696583 FAX.: +86 576 82696589

## MILL TEST REPORT

Date: 2017-4-7	Invoice: CI63111-1
Contract No.: L63111	Loading Port: Tianjin, China
COUNTRY OF MELT & MANUFACTURE: CHINA	

MATERIAL GRADE: 5052H32 AS PER "ASTM B209-14" - AMS/99 A 250/8 AND AMS 4016M

Destination: TORONTO

B/L NO.: YMLUW235126112

ISF NO.:

ETD: 2017-4-6

No.	PO NO.	DESCRIP TION OF GOODS:	ALLOY/T EMPER	Specification (inch)	Bundle No.	N.W. (lbs)	HEAT NO.	Chemical Composition(%)								Mechanical Properties				
								Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	T.S(ksi)	Yield.S. (ksi)	E(%)
1	L63111	SHEET	5052H32	0.04*48*96	5170210352-4	2945	5170210352	96.97	0.088	0.259	0.003	0.033	2.430	0.200	0.000	0.006	0.015	32.6	27.8	12.0
2	L63111	SHEET	5052H32	0.04*48*96	5170210352-3	2945	5170210352	96.97	0.088	0.259	0.003	0.033	2.430	0.200	0.000	0.006	0.015	32.6	27.8	12.0
3	L63111	SHEET	5052H32	0.04*48*120	5170210352-5	3347	5170210352	96.97	0.088	0.259	0.003	0.033	2.430	0.200	0.000	0.006	0.015	32.6	27.8	12.0
4	L63111	SHEET	5052H32	0.04*48*120	5170210352-6	3501	5170210352	96.97	0.088	0.259	0.003	0.033	2.430	0.200	0.000	0.006	0.015	32.6	27.8	12.0
5	L63111	SHEET	5052H32	0.125*48*144	5170310191-4	2731	5170310191	96.91	0.078	0.264	0.005	0.056	2.470	0.193	0.000	0.006	0.016	32.6	27.3	13.0
6	L63111	SHEET	5052H32	0.125*48*144	5170310191-5	2751	5170310191	96.91	0.078	0.264	0.005	0.056	2.470	0.193	0.000	0.006	0.016	32.6	27.3	13.0
7	L63111	SHEET	5052H32	0.25*48*120	5170210383-3	3355	5170210383	97.08	0.078	0.247	0.003	0.031	2.360	0.187	0.000	0.005	0.012	31.2	26.5	13.0
8	L63111	SHEET	5052H32	0.25*48*120	5170210383-2	3355	5170210383	97.08	0.078	0.247	0.003	0.031	2.360	0.187	0.000	0.005	0.012	31.2	26.5	13.0
9	L63111	SHEET	5052H32	0.25*48*120	5170210383-1	3355	5170210383	97.08	0.078	0.247	0.003	0.031	2.360	0.187	0.000	0.005	0.012	31.2	26.5	13.0

浙江巨科铝业股份有限公司

ZHE JIANG GKO ALUMINIUM STOCK CO., LTD.

Heat 5170210352

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 5052-H32 ALUMINUM SHEET

SPECIFICATION:

QQ-A-250/8 OR AMS-QQ-A-250/8  
OR AMS 4016  
OR ASTM B209

PART NUMBER:

M5052H32S | XXX |  
THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M5052H32 063

PREFERRED SIZE:

.XXX BY 4FT BY 8FT

RELEASED  
R 2009-10-30  
AWP

B	REFORMAT DWG	ADD B 100 SPEC (2N DB-1)	PAR 08-020A	CP	09/01/26
A	NEW ISSUE			DS	01/05/08
REV	DESCRIPTION	BY	DATE		
DESIGN					
DRAWN					
CHECKED					
MFG APPR					
APPROVED					
DE APPR					
DATE	09.09.26				
DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA					
DRAWING NO. M5052H32S					
TITLE 5052-H32 SHEET SPEC					
REV B					
SCALE 1:1 OF 1					
N/S					
COPYRIGHT - 2018 BY DART AEROSPACE LTD					



## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MS05.2 H325.040  
 DATE: 18/12/19

PO / BATCH NO.: P0041983/S138864

MATERIAL CERT REC'D: K5  
 QUANTITY RECEIVED: 325f  
 QUANTITY INSPECTED: 325f  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.040  
 THICKNESS RECEIVED: 0.040  
 SHEET SIZE ORDERED: 4'x8'  
 SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	N	AMS Q2 A250/A
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	MT: J107040352
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> <u>9-86</u>	SIGNED OFF BY: _____
DATE: <u>18/12/19</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

124561 Dart 2232111 (2)

**HENAN MINGTAI AL. INDUSTRIAL CO., LTD**

HUIGUO ZHEN, GONGYI, HENAN, CHINA 451283

TEL: 371-67898611 EMAIL: shaw@hngymt.com

3174

**MILL TEST CERTIFICATE**

TO: TA CHEN INTERNATIONAL INC.  
5855 OBISPO AVENUE  
LONG BEACH, CA 90805  
TEL: (562)808-8199  
FAX: (562)808-8110  
H-TZTO180707

INVOICE NO.: L75515/L75517/L75518/N13293  
CONTRACT NO.:  
LOADING PORT: XINGANG, CHINA  
DESTINATION: TORONTO, CANADA  
SHIPPING MARKS: N/M  
DATE: 23-Jul-18

DESCRIPTION OF GOODS:

ALUMINUM SHEET 3003 H14

CERTIFIED TO ALL AA, ASTM B209-14, AMS/QQA 250/2, AMS 4008K SPECS.

ALUMINUM TREAD PLATE 3003 H22/H24

CERTIFIED TO MINGTAI TREAD BRIGHT SPECS.

ALUMINUM SHEET 5052 H32

CERTIFIED TO ALL AA, ASTM B209-14, AMS/QQA 250/8, AMS 4016M SPECS.

CIF TORONTO, CANADA

**CHEMICAL COMPOSITION**

Alloy/Tmp	Lot No.	Specs(In)	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Othe rs	Al
STANDARD			0.6	0.7	0.05-0.2	1.0-1.5	-	-	0.1	-	0.15	REMAIN
3003 H22/H24	Z-1807YB054	.125*48*96	0.194	0.643	0.072	1.128	0.003	0.009	0.018	0.033	<0.15	REMAINDER
3003 H22/H24	Z-1807YB054	.125*48*120	0.194	0.643	0.072	1.128	0.003	0.009	0.018	0.033	<0.15	REMAINDER
3003 H22/H24	ZB-1807YB064	.188*48*120	0.190	0.597	0.069	1.054	0.010	0.007	0.018	0.034	<0.15	REMAINDER
3003 H22/H24	ZB-1807YB064	.188*48*144	0.190	0.597	0.069	1.054	0.010	0.007	0.018	0.034	<0.15	REMAINDER
3003 H14	GFA1806W30023	.100*60*120	0.180	0.554	0.108	1.112	0.007	0.010	0.010	0.036	<0.15	REMAINDER
3003 H14	GFA1807W30004	.040*48*96	0.166	0.580	0.106	1.168	0.020	0.009	0.013	0.034	<0.15	REMAINDER
3003 H14	GFA1807W30004	.040*48*120	0.166	0.580	0.106	1.168	0.020	0.009	0.013	0.034	<0.15	REMAINDER
3003 H14	GFA1807W30004	.050*48*96	0.166	0.580	0.106	1.168	0.020	0.009	0.013	0.034	<0.15	REMAINDER
3003 H14	GFA1807W30004	.050*48*120	0.166	0.580	0.106	1.168	0.020	0.009	0.013	0.034	<0.15	REMAINDER
3003 H14	GFA1807W30017	.100*48*96	0.191	0.576	0.114	1.135	0.013	0.016	0.035	0.032	<0.15	REMAINDER
3003 H14	GFA1807W30018	.125*48*120	0.156	0.574	0.117	1.133	0.024	0.009	0.030	0.032	<0.15	REMAINDER
3003 H14	GFA1807W30018	.125*48*144	0.156	0.574	0.117	1.133	0.024	0.009	0.030	0.032	<0.15	REMAINDER
3003 H14	GFA1807W30035	.080*60*120	0.160	0.595	0.117	1.187	0.015	0.011	0.026	0.033	<0.15	REMAINDER
3003 H14	GFB1804W30106	.080*60*120	0.157	0.560	0.112	1.115	0.011	0.013	0.010	0.033	<0.15	REMAINDER
3003 H14	GFB1805W30040	.100*60*120	0.179	0.582	0.121	1.108	0.018	0.017	0.021	0.031	<0.15	REMAINDER
3003 H14	GFB1805W30045	.125*48*96	0.174	0.557	0.106	1.116	0.015	0.016	0.014	0.031	<0.15	REMAINDER
3003 H14	GFB1805W30074	.125*60*120	0.185	0.551	0.106	1.127	0.017	0.011	0.022	0.034	<0.15	REMAINDER
3003 H14	GFD1807W30001	.190*60*120	0.183	0.554	0.104	1.105	0.010	0.009	0.005	0.031	<0.15	REMAINDER

Alloy-Tmp	Lot No.	Specs(In)	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others	Al
STANDARD			0.25	0.4	0.1	0.1	2.2-2.8	0.15-0.35	0.1	0.023	0.15	REMAIN
5052 H32	GFA1806W50093	.125*60*120	0.100	0.327	0.018	0.032	2.461	0.185	0.016	0.016	<0.15	REMAINDER
5052 H32	GFA1807W50003	.063*48*96	0.110	0.346	0.025	0.061	2.350	0.164	0.030	0.020	<0.15	REMAINDER
5052 H32	GFA1807W50003	.063*48*120	0.110	0.346	0.025	0.061	2.350	0.164	0.030	0.020	<0.15	REMAINDER
5052 H32	GFA1807W50026	.125*48*96	0.070	0.190	0.010	0.050	2.560	0.210	0.010	0.020	<0.15	REMAINDER
5052 H32	GFA1807W50026	.125*48*120	0.070	0.190	0.010	0.050	2.560	0.210	0.010	0.020	<0.15	REMAINDER
5052 H32	GFD1806W50078	.190*48*96	0.093	0.308	0.024	0.071	2.343	0.164	0.022	0.021	<0.15	REMAINDER
5052 H32	GFD1806W50078	.190*48*120	0.093	0.308	0.024	0.071	2.343	0.164	0.022	0.021	<0.15	REMAINDER

#### MECHANICAL PROPERTY

Alloy-Tmp	Lot No.	Specs(In)	Tensile strength		Yield strength		Elongation
			Mpa	Ksi	Mpa	Ksi	%
STANDARD			120-180		86-150		
3003 H22/H24	Z-1807YB054	.125*48*96	121	17.5	87	12.6	22
3003 H22/H24	Z-1807YB054	.125*48*120	121	17.5	87	12.6	22
3003 H22/H24	ZB-1807YB064	.188*48*120	122	17.7	99	14.4	22
3003 H22/H24	ZB-1807YB064	.188*48*144	122	17.7	99	14.4	22
STANDARD			140-178		120-160		
3003 H14	GFA1806W30023	.100*60*120	151	21.9	143	20.7	13
3003 H14	GFA1807W30004	.040*48*96	143	20.7	133	19.3	12
3003 H14	GFA1807W30004	.040*48*120	143	20.7	133	19.3	12
3003 H14	GFA1807W30004	.050*48*96	143	20.7	133	19.3	12
3003 H14	GFA1807W30004	.050*48*120	143	20.7	133	19.3	12
3003 H14	GFA1807W30017	.100*48*96	146	21.2	137	19.9	14
3003 H14	GFA1807W30018	.125*48*120	146	21.2	136	19.7	14
3003 H14	GFA1807W30018	.125*48*144	146	21.2	136	19.7	14
3003 H14	GFA1807W30035	.080*60*120	148	21.5	140	20.3	12
3003 H14	GFB1804W30106	.080*60*120	148	21.5	131	19.0	13
3003 H14	GFB1805W30040	.100*60*120	148	21.5	132	19.1	13
3003 H14	GFB1805W30045	.125*48*96	146	21.2	120	17.4	13
3003 H14	GFB1805W30074	.125*60*120	161	23.4	155	22.5	13
3003 H14	GFD1807W30001	.190*60*120	175	25.4	159	23.1	13
STANDARD			215-241		159-199		
5052 H32	GFA1806W50093	.125*60*120	215	31.2	179	26.0	16
5052 H32	GFA1807W50003	.063*48*96	225	32.6	194	28.1	10
5052 H32	GFA1807W50003	.063*48*120	225	32.6	194	28.1	10
5052 H32	GFA1807W50026	.125*48*96	216	31.3	186	27.0	13
5052 H32	GFA1807W50026	.125*48*120	216	31.3	186	27.0	13
5052 H32	GFD1806W50078	.190*48*96	219	31.8	183	26.5	14
5052 H32	GFD1806W50078	.190*48*120	219	31.8	183	26.5	14

PRODUCER: HENAN MINGTAI AL. INDUSTRIAL CO., LTD  
COUNTRY OF MELT AND MANUFACTURE: CHINA



有印

Heat: GFA1807W50003



# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 5052-H32 ALUMINUM SHEET  
 SPECIFICATION: QQ-A-250/8 OR AMS-QQ-A-250/8  
 OR AMS 4016  
 OR ASTM B209

PART NUMBER: M5052H32S | XXX THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)  
 EG. 0.063" THICK SHEET = M5052H32 063

PREFERRED SIZE: XXX BY 4FT BY 8FT

RELEASED  
 R 2009-10-30  
 ANP

0	REFORMAT DWG	ADD B-09 SPEC (N DP-1)	CP	03 09 26
A	NEW ISSUE		DS	01 06 08
REV	DESCRIPTION	BY	DATE	
DESIGN				
DRAWN				
CHECKED				
MFG APPR				
APPROVED				
DE APPR				
DATE	09.09.26			

DART AEROSPACE LTD		REV. B
HAWKESBURY, ONTARIO CANADA		
DRAWING NO.	M5052H32S	SHEET 1 OF 1
TITLE	5052-H32 SHEET SPEC	SCALE
		NTS
COPYRIGHT © 2001 BY DART AEROSPACE LTD		

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MS052 H325.063

PO / BATCH NO.: P0041983/5138865

DATE: 18/12/19

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.063"

QUANTITY RECEIVED: 32 sf

THICKNESS RECEIVED: 0.063"

QUANTITY INSPECTED: 32 sf

SHEET SIZE ORDERED: 4'x8'

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	AMS QA A250/8
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	HT: GFA 1807W5003
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> DATE: <u>18/12/19</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



18463  
51831

# CERTIFICATE OF ANALYSIS CERTIFICAT D'ANALYSE

DATE **07/13/18** CUSTOMER ORDER NO. **B 41352** MILL ORDER NO. **268193-00**  
 NO. DE LA COMMANDE DU CLIENT NO. DE LA MLL  
 PRODUCT DESCRIPTION BILL OF LADING  
 PRODUIT DESCRIPTION BON DE CONNAISSANCEMENT

L 94 FE10329343 YOUR ITEM # : V715412

3/4 RD **1144** 20/22 FT

COLD FINISHED STEEL BARS CARBON  
 COLD DRAWN & STRESS RELIEF ANNEALED  
 "CENTURY" **ASTM A311** CLASS B  
 STANDARD AISI TOLERANCES  
 C .40/.48 MN 1.35/1.65 P .040MAX S .24/.33  
 TRANSPORT BY TRUCK - PROTECT WITH TARP  
 CHEMICAL & MECHANICAL TEST REPORT REQUIRED  
 ASTM A108

COUNTRY OF ORIGIN - CANADA  
 HOT ROLL SOURCE : ARCELORMITTAL  
 NAFTA CERTIFIED YES: X NO:

LADLE ANALYSIS/ANALYSE DE LA COUILLER A COULER

HEAT NUMBER <b>C124677</b>	C.	.420	MN.	1.380	P.	.008	S.	.258
	SI.	.200	CU.	.030	NI.	.020	CR.	.020
	CB.		V.	.004	MO.	.004	PB.	
	B.		AL.	.001	SN.	.006		

MECHANICAL PROPERTIES/PROPRIÉTÉS MECANIKES  
 HEAT NUMBER C124677

YIELD STRENGTH 112000 P.S.I. @ .2% OFFSET  
 LIMIT D'ELASTICITE  
 TENSILE STRENGTH 129000 P.S.I.  
 RESISTANCE A LA TRACTION

ELONGATION (2 INCHES) 10.000 %  
 ALLONGEMENT

REDUCTION OF AREA 29.000 %  
 STRICTION

HARDNESS 255 HB  
 DURETE

☐ MAG  
TEST

☒ ROTO  
TEST

☐ ULTRA  
SONIC TEST

NO WELDING OR WELD REPAIR PERFORMED ON THIS MATERIAL.  
 THIS MATERIAL WAS NOT EXPOSED TO MERCURY DURING  
 PROCESSING OR WHILE IN OUR POSSESSION.

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HAS BEEN TESTED IN ACCORDANCE  
 WITH SPECIFICATION, AND THAT THE RESULTS ARE CORRECT AS CONTAINED IN THE  
 RECORDS OF THE COMPANY.

PAR LES PRÉSENTES NOUS CERTIFIONS QUE LA MATIÈRE DÉCRITE A ÉTÉ TESTÉE  
 CONFORMÉMENT AUX SPÉCIFICATIONS ET QUE LES RÉSULTATS SONT CORRECTS. COMME  
 INDICÉ DANS LES RÉSULTATS DE LA COMPAGNIE.

PER/PAR *[Signature]*

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 1144 STRESSPROOF STEEL ROUND BAR  
SPECIFICATION : (ASTM A311) or UNS G11440  
PART NUMBER : MT-1144-R [D.DDD]  
WHERE "D.DDD" = DIAMETER IN INCHES  
EG. 5/8" ROUND BAR = MT-1144-R0.625

REV	DESCRIPTION	DATE	BY	APPROVED
A	NEW ISSUE	17.08.09	VM	WM

2017.05.12

<b>DART</b> AEROSPACE Manufacturing Division, Canada	
TITLE AISI 1144 STRESSPROOF STEEL ROUND BAR	
REV	REV
001	A
DESCRIPTION	MT-1144-R
DESIGNED BY	VM 08/01/2017
CHECKED	SAC 08/01/2017
APPROVED	PD 08/01/2017
DATE	08/01/2017
1. DIMENSIONAL LIMITS APPLY	
2. MATERIALS AND TOL FOR	
3. DIMENSIONAL LIMITS APPLY	
4. DIMENSIONAL LIMITS APPLY	
5. DIMENSIONAL LIMITS APPLY	
6. DIMENSIONAL LIMITS APPLY	
7. DIMENSIONAL LIMITS APPLY	
8. DIMENSIONAL LIMITS APPLY	
9. DIMENSIONAL LIMITS APPLY	
10. DIMENSIONAL LIMITS APPLY	
11. DIMENSIONAL LIMITS APPLY	
12. DIMENSIONAL LIMITS APPLY	
13. DIMENSIONAL LIMITS APPLY	
14. DIMENSIONAL LIMITS APPLY	
15. DIMENSIONAL LIMITS APPLY	
16. DIMENSIONAL LIMITS APPLY	
17. DIMENSIONAL LIMITS APPLY	
18. DIMENSIONAL LIMITS APPLY	
19. DIMENSIONAL LIMITS APPLY	
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-1144-R0.750

PO / BATCH NO.: R0041983/5138866

DATE: 18/12/19

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.750"

QUANTITY RECEIVED: 2244

THICKNESS RECEIVED: 0.750"

QUANTITY INSPECTED: 2244

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<u>N</u>	
CORRECT FINISH	<u>Y</u>	N	
CORROSION	Y	<u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u>	N	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u>	N	<u>ASTM A311</u>
CORRECT THICKNESS	<u>Y</u>	N	
PHOTO REQUIRED	Y	<u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u>	N	<u>HT: C124677</u>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u>	N	
CORRECT M# ON THE MATERIAL	<u>Y</u>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 61</u> DATE: <u>18/12/19</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

22 321 N



# LB ALUMINIUM BERHAD

(138535-V)

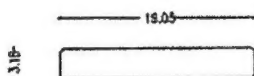


ALUMINIUM EXTRUSION 鋁 擠 壓 工 藝 及 設 備 展 覽 會 報 告

## MILL CERTIFICATE

	SECTION NO. : PE01452MF06100	DATE : Nov-23-2017
SALES ORDER NO : 1817448	WORK ORDER : 770686	ALLOY : 6061-T6S11
PRESS NO. : 1102	EXTRUSION DATE : Nov-18-2017	CERTIFICATE NO. : CN1715501
CUSTOMER PO NO. : P207292		

**Section Sketch :**



CHEMICAL COMPOSITION										
Composition	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Analysis Ref.-
Min	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	Remainder	76981
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15		Jun-03-2015
Actual	0.746	0.229	0.200	0.112	1.041	0.055	0.015	0.012		

Compliance with ASTM B221M-07

We hereby certify that the material covered by this report has been verified or tested according to the seller standard sampling method or the requirements of any specifications or requirements described herein, and that sample representative of the material met the composition limits. Also, note that mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds are used in the manufacture of our extrusion. This certificate conforms to 3.1, EN 10204

**\*\* This certificate of Analysis has been produced electronically and is valid without signature \*\***

$$1/8 \times 3/4$$

Lot 11, Jalan Perusahaan 1, Kawasan Perusahaan Beranang, 43700 Beranang, Selangor Darul Ehsan, Malaysia.

Tel: 603-8725 8822 (15 Lines) Fax: 603-8725 8828 (General), 8725 8833 (Sales), 8725 8866 (Export)

Enquiry@lbalum.com.my    www.lbalum.com

Heat: CN 1715501

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)  
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WWW.WWW | THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES  
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

**RELEASED**  
2009-05-03  
NPD

B		REMOVE QQ-A-250/1 OPTION REFORMAT NOTE S. ADD		CP	09.07.13
A		ASTM B211/B221 (2N D7-1)		DS	01.06.08
REV.		NEW ISSUE		BY	DATE
DESIGN		DS		DART AEROSPACE LTD	
DRAWN		9		HAWKESBURY, ONTARIO, CANADA	
CHECKED		AS		DRAWING NO	
MFG. APPR.		M6061T6B		REV. B	
APPROVED		TITLE		SHEET 1 OF 1	
DE APPR.		6061-T6 BAR		SCALE	
DATE		09.07.13		NTS	
COPYRIGHT © 2007 BY DART AEROSPACE LTD					



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6B0.750x00.125

PO / BATCH NO.: P0041983/5138867

DATE: 18/12/19

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: ~~0.350"~~ 00.125"

QUANTITY RECEIVED: 100ft

THICKNESS RECEIVED: 00.125"

QUANTITY INSPECTED: 100ft

SHEET SIZE ORDERED: ✓

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: ✓

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	ASTM B221
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	HTCN1715501
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> DATE: <u>18/12/19</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in